927-24 Clinical and Angiographic Implications of Coronary Stenting in Thrombus-Containing Lesions

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Coronary stenting (ST) is increasingly used during coronary interventions, even in patients (P) with acute coronary syndromes where the pathologic substrate frequently includes thrombus (THR). However, the results of ST in P with an angiographically visible THR remain to be established. Accordingly, 86 consecutive P (age 61 ± 11 years, 14 female) undergoing ST (39% elective, 61% after dilation failure) of a THR-containing lesion (92 lesions) were studied. Sixty-four P (75%) were dilated for unstable angina and 19 (22%) during an acute myocardial infarction (including 6 P in cardiogenic shock). The first 25 P were treated with standard anticoagulation but the remaining 61 P only received aspirin and ticlopidine. Angiographic success was obtained in 83 P (96%). Five P died during hospitalization despite angiographic success (4 in cardiogenic shock and 1 with subacute thrombosis). Five additional P (6%) developed a non-Q-wave myocardial infarction. Of the 78 P discharged with angiographic success, 67 (86%) were event-free and clinically improved at last follow-up (12 ± 11 months). Eight P required repeat angioplasty, 1 required cardiac transplantation and 2 P died. On actuarial analysis (Kaplan-Meier) event-free survival (death or myocardial infarction) of the initial 86 P, at 12 moths, was 79%. Late angiography (5.5 ± 1 months) was obtained in 50 P (93% of eligible) revealing a MLD of 2.0 ± 1 mm and restenosis (lumen narrowing > 50%) in 18/54 lesions (33%). *Conclusions:* ST provides an effective therapy for P with THR-containing lesions either after dilation failure or electively as the primary procedure. ST in this adverse anatomic setting results in a high degree of angiographic success, a low incidence of subacute thrombosis and an acceptable restenosis rate.

MONDAY POSTER

928 Angioplasty

Monday, March 17, 1997, Noon–2:00 p.m.
Anaheim Convention Center, Hall E
Presentation Hour: Noon–1:00 p.m.

928-7 Age of Saphenous Vein Bypass Graft Does Not Predict Need for Target Vessel Revascularization Following Percutaneous Intervention

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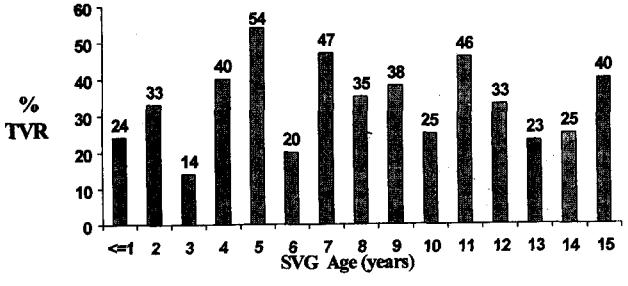
Prior studies show that procedural complications are increased in older saphenous vein graft (SVG) interventions. It is unclear whether restenosis likewise increases with SVG age. To determine if age of SVG influences the need for target vessel revascularization (TVR) following percutaneous intervention, we assessed follow up TVR rates in 189 patients undergoing SVG interventions between 9/93 and 9/95. Interventions included balloon angioplasty, directional atherectomy, stenting, extraction atherectomy, and ELCA. No correlation was found between SVG age and need for TVR by linear regression analysis ($r^2 = 0.007$, p = NS):



Conclusions: Despite a known increased risk of procedural complications, age of SVG does not appear to influence need for TVR following percutaneous intervention.

928-8 Ultrasound (ICUS)-Guided PTCA and Stenting Improves Acute Angiographic Results: Acute Analysis of the Strategy of ICUS-Guided PTCA and Stenting (SIPS) Trial

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The aim of the SIPS trial is to determine whether ICUS guidance during intervention improves acute and chronic outcomes. All consecutive patients excluding chronic total occlusions at a single center were randomized to either ICUS-guided intervention using a combination ICUS/balloon device (Oracle Focus, Endosonics) (ICUS group) or standard angiographically guided therapy (STD group). The therapy goal in the ICUS group was to achieve a lesional minimal lumen area of > 65% that in the reference segment. Acute enrollment of 269 patients (355 lesions) concluded in 5–96. Stents were placed in 49% of lesions in each group (p = ns.). Core lab acute angiographic results (CAAS-II) (90% complete) were: (mean values)

	Final MLD		Acute Gain		% diam sten	
Lesions	ICUS	STD	ICUS	STD	ICUS	STD
All	2.50	2.38	1.87	1.67*	18.4	22.0
PTCA	2.15	1.92*	1.45	1.30	25.6	33.5*
Stent	2.87	2.82	2.29	2.03*	11.2	10.6

MLD = minimal lumen diameter (mm). *p < 0.01

We conclude that a strategy of ICUS-guided intervention during PTCA results in better acute angiographic results than the use of angiographic guidance alone. Acute lumenal gain was also greater during stent procedures. The long term benefit of this strategy will be determined after 6 month angiographic follow up to be completed 12–96.

928-9 Early Ambulation after Coronary Angioplasty with 6 French Guiding Catheters and Low Dose Heparin

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Background: Early ambulation after PTCA may reduce hospital stay but potentially increase puncture site related complications.

Methods: Ambulation after 4 hours was evaluated prospectively in 295 consecutive patients who underwent elective PTCA, routinely using 6 French guiding catheters by the femoral approach and a standard dose of 5000 IU of heparin. All patients were pretreated with aspirin. There were no angiographic exclusion criteria except scheduled atherectomy. Patients on oral anticoagulants or additional heparin treatment were excluded. The arterial sheath was removed immediately after the procedure, hemostasis was obtained by manual compression and maintained with an inguinal compression bandage. This bandage was removed after 4 hours of bedrest in a supine position, and the patient was ambulated. The occurrence of puncture site complications was documented 48 hours following the procedure.

Results: A total of 272 (92%) of 295 patients were allocated to early ambulation. There were no deaths, acute CABG was performed in 1 patient; 23 patients were excluded because additional heparinisation was considered necessary for major dissection, 'bail-out' stenting, sidebranch occlusion or angiographic appearance of thrombus. Included were 32 patients who underwent elective stent implantation treated with ticlopidin. The mean time to hemostasis was 8.8 ± 3.2 min. Puncture site complications were found in 5/272 patients (1.8%): bleeding at the time of ambulation occurred in 1 patient; one arteriovenous fistula, and 3 hematoma > 5 cm were documented during 48 hour follow-up. All complications were treated conservatively without further sequelae.

Conclusion: Early ambulation 4 hours after PTCA with 6 Fr guiding catheters by the femoral route is safe with minimal postprocedural complications; the combined approach with 6 Fr catheters and low-dose heparin facilitates a short hospital stay in the majority of elective procedures.

928-10 Computerized, Automatic Pressure Sensor and Inflator Device (CAPSID) – A New Technique for Safer, Gradual Dilatation of Coronary Stenosis and PTCA Pressure Volume Curve Analysis

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Routine manual inflation of a PTCA balloon produces uncontrolled arterial trauma, prolonged pain and a high rate of restenosis. In order to reduce barotrauma we developed CAPSID: the program starts with a rising 3 atmosphere inflation over 20 sec, holds pressure for 20 sec, followed by fast deflation and reperfusion for 20 sec. This is followed by successive incremental cycles of